

CLAIMS

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1. A display device comprising:
a display that presents color images; and
a processor integrated with the display device that adjusts the color images.
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2. The display device of claim 1, wherein the processor:
receives color input;
processes the color input to generate altered color image data; and
outputs the altered color image data to the display.
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3. The display device of claim 2, wherein the processor receives internal color
input and external color input.
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4. The display device of claim 2, wherein the color input includes a display profile
and a source device profile.
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5. The display device of claim 2, wherein the color input includes image data.
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6. The display device of claim 3, wherein the internal color input includes sensed
conditions.
7. The display device of claim 3, wherein the external color input includes user
input.
8. The display device of claim 3, wherein the external color input includes image
data.
9. The display device of claim 1, wherein the processor is an application specific
integrated circuit.

10. The display device of claim 1, wherein the display is one of the following:
cathode ray tube, flat panel display, digital paper, plasma display, and electronic ink
display.

5 11. The display device of claim 1, wherein the processor:
receives color input including a display profile, a source profile and image data;
processes the input to generate altered image data; and
outputs the altered image data to the display.

10 12. The display device of claim 11, wherein the display device renders images on
the display according to the altered image data.

13. The display device of claim 12, wherein the images rendered on the display
substantially visually match images rendered by a source device associated with the
15 source profile.

14. The display device of claim 1, further comprising an archive coupled to the
processor.

20 15. The display device of claim 14, wherein the archive stores links.

16. The display device of claim 14, wherein the archive comprises
electrically-erasable-programmable-read-only-memory.

25 17. The display device of claim 14, wherein the archive comprises random access
memory.

18. The display device of claim 1, wherein the processor is housed within the
display.

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19. The display device of claim 1, wherein the processor is housed within a color matching hardware unit that is coupled to the display.

20. The display device of claim 19, further comprising an archive coupled to the processor and housed within the color matching hardware unit.

21. The display device of claim 14, wherein the processor:
receives color input including a display profile, a source profile, and image data;
checks the archive to determine whether altered image data has already been processed for the color input;
processes the color input to generate altered image data if the altered image data has not already been processed; and
outputs the altered image data to the display.

22. A method comprising:
receiving color input in a display device;
processing the color input in a processor integral with the display device to generate altered image data; and
displaying color according to the altered image data.

23. The method of claim 22, wherein receiving color input in the display device comprises receiving internal input and external input.

24. The method of claim 23, wherein receiving internal input includes receiving sensed conditions.

25. The method of claim 23, wherein receiving internal input includes receiving a display profile.

26. The method of claim 23, wherein receiving external input includes receiving sensed conditions.

5 27. The method of claim 23, wherein receiving external input includes receiving image data.

28. The method of claim 23, wherein receiving external input includes receiving a source profile.

10 29. The method of claim 23, wherein processing the color input in a processor integral with the display device comprises processing the color input in a processor internal to the display device.

15 30. The method of claim 22, wherein processing the color input in a processor integral with the display device comprises processing the color input in a processor internal to a color matching hardware unit coupled to the display device.

31. The method of claim 22, further comprising generating a link.

20 32. The method of claim 31, further comprising storing the link in an archive integral with the display device.

33. A color matching hardware unit integral with a display device, the hardware unit comprising:

25 a housing, and

a processor in the housing that:

receives color input;

processes the color input; and

outputs altered color image data to the display device.

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34. The color matching hardware unit of claim 33, further comprising an archive in the housing, the archive coupled to the processor.

5 35. The color matching hardware unit of claim 34, wherein the processor generates a link and stores the link in the archive.

36. The color matching hardware unit of claim 33, wherein the processor receives color input including a display profile, a source profile and image data.

10 37. The color matching processor unit of claim 33, wherein the processor receives internal color input from the display device and external color input from a source other than the display device.

15 38. A system comprising:
a plurality of display devices, each display device including an integral color matching processor;
a color management control coupled to the display devices; and
at least one printing device coupled to the color management control.

20 39. The system of claim 38, wherein the integral color matching processors are internal to the display devices.

25 40. The system of claim 38, further comprising a plurality of color matching hardware units, each hardware unit corresponding to one of the display devices and each hardware unit housing one of the integral color matching processors.

30 41. The system of claim 38, wherein each respective color matching processor:
receives color input from the color management unit,
processes the color input; and
outputs altered color image data to the respective display device associated with the respective color matching processor.

42. The system of claim 41, wherein each respective color matching processor receives color input from the respective display device associated with the respective color matching processor.

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43. The system of claim 38, further comprising a plurality of archives, wherein each archive is coupled to one of the integral color matching processors.

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